

Appl. No. 09/372,459
Amendment and/or Response
Reply to Office action of 20 June 2003

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Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

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1. (Previously presented) A color signal matrix adjustment method, comprising:
adjusting a single first color signal matrix related value to obtain a color signal matrix adjustment; and
automatically adapting at least two color signal matrix parameters other than said single first color signal matrix related value in dependence upon said color signal matrix parameter adjustment.
 2. (Currently amended) The method of claim 1, wherein:
said single first color signal matrix related value is a first color signal matrix parameter corresponding to a first color;
said color signal matrix adjustment is an increase of said first color signal matrix parameter by an amount δ to change a reproduction of said first color; and
said automatically adapting step includes multiplying all color matrix parameters corresponding to colors other than said first color by a factor $(\Sigma X + \delta) / \Sigma X$, in which ΣX is a sum of color signal matrix parameters corresponding to said first color, to substantially maintain a white reproduction to a large extent.

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3. (Withdrawn) The method of claim 1, wherein:

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said single first color signal matrix related value is a sum ΣX of color signal matrix parameters corresponding to a first color;

said color signal matrix adjustment is an increase of said sum ΣX of color signal matrix parameters by an amount δ to change a reproduction of both said first color and white; and

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said automatically adapting step includes multiplying all color matrix parameters corresponding to said first color by a factor $(\Sigma X + \delta) / \Sigma X$ to maintain a ratio between said color matrix parameters corresponding to said first color.

4. (Withdrawn) The method of claim 1, wherein:

said single first color signal matrix related value is a sum ΣX of color signal matrix parameters corresponding to a first color;

said color signal matrix adjustment is an increase of said sum ΣX of color signal matrix parameters by an amount δ to change color signal amplitudes; and

said automatically adapting step includes multiplying all color matrix parameters by a factor $(\Sigma X + \delta) / \Sigma X$ to maintain a reproduction of both said first color and white.

5. (Previously presented) A color signal matrix adjustment device, comprising:

means for adjusting a single first color signal matrix related value to obtain a color signal matrix adjustment; and

means for automatically adapting at least two color signal matrix parameters other than said single first color signal matrix related value in dependence upon said color signal matrix parameter adjustment.

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6. (Previously presented) A color camera, comprising a color sensor for producing input color signals and a color signal matrix adjustment device for adjusting said input color signals to obtain output color signals, wherein the color signal matrix adjustment device includes:

means for adjusting a single first color signal matrix related value to obtain a color signal matrix adjustment; and

means for automatically adapting at least two color signal matrix parameters other than said single first color signal matrix related value in dependence upon said color signal matrix parameter adjustment.

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7. (New) The camera of claim 6, wherein:

said single first color signal matrix related value is a first color signal matrix parameter corresponding to a first color;

said color signal matrix adjustment is an increase of said first color signal matrix parameter by an amount δ to change a reproduction of said first color; and

said automatically adapting step includes multiplying all color matrix parameters corresponding to colors other than said first color by a factor $(\Sigma X + \delta) / \Sigma X$, in which ΣX is a sum of color signal matrix parameters corresponding to said first color, to substantially maintain a white reproduction.

8. (New) The camera of claim 6, wherein:

said single first color signal matrix related value is a sum ΣX of color signal matrix parameters corresponding to a first color;

said color signal matrix adjustment is an increase of said sum ΣX of color signal matrix parameters by an amount δ to change a reproduction of both said first color and white; and

said automatically adapting step includes multiplying all color matrix parameters corresponding to said first color by a factor $(\Sigma X + \delta) / \Sigma X$ to maintain a ratio between said color matrix parameters corresponding to said first color.

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9. (New) The camera of claim 6, wherein:

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said single first color signal matrix related value is a sum ΣX of color signal matrix parameters corresponding to a first color;

said color signal matrix adjustment is an increase of said sum ΣX of color signal matrix parameters by an amount δ to change color signal amplitudes; and

said automatically adapting step includes multiplying all color matrix parameters by a factor $(\Sigma X + \delta) / \Sigma X$ to maintain a reproduction of both said first color and white.

10. (New) The color signal matrix adjustment device of claim 5, wherein:

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said single first color signal matrix related value is a first color signal matrix parameter corresponding to a first color;

said color signal matrix adjustment is an increase of said first color signal matrix parameter by an amount δ to change a reproduction of said first color; and

said automatically adapting step includes multiplying all color matrix parameters corresponding to colors other than said first color by a factor $(\Sigma X + \delta) / \Sigma X$, in which ΣX is a sum of color signal matrix parameters corresponding to said first color, to substantially maintain a white reproduction.

11. (New) The color signal matrix adjustment device of claim 5, wherein:

said single first color signal matrix related value is a sum ΣX of color signal matrix parameters corresponding to a first color;

said color signal matrix adjustment is an increase of said sum ΣX of color signal matrix parameters by an amount δ to change a reproduction of both said first color and white; and

said automatically adapting step includes multiplying all color matrix parameters corresponding to said first color by a factor $(\Sigma X + \delta) / \Sigma X$ to maintain a ratio between said color matrix parameters corresponding to said first color.

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12. (New) The color signal matrix adjustment device of claim 5, wherein:
said single first color signal matrix related value is a sum ΣX of color signal matrix parameters corresponding to a first color;
said color signal matrix adjustment is an increase of said sum ΣX of color signal matrix parameters by an amount δ to change color signal amplitudes; and
said automatically adapting step includes multiplying all color matrix parameters by a factor $(\Sigma X + \delta) / \Sigma X$ to maintain a reproduction of both said first color and white.
